

MATERIAL SAFETY DATA SHEET

SECTION 1 – IDENTIFICATION OF THE CHEMICAL PRODUCT AND COMPANY

Product Name: Kenso Agcare Ox 240 Herbicide
Product Type: Group G Herbicide
Company Name: Kenso Corporation (M) Sdn Bhd
Address: Unit 3C, 59, Oxford Street, Bulimba Queensland 4171
Telephone Number: (07) 3217 9788
Facsimile Number: (07) 3217 9733
Emergency Telephone Number: 000 (Police or Fire Brigade)
13 11 26 (Poisons Information Centre)
Use: For the selective control of certain broadleaf and grass weeds as per the directions for use table on the label.

SECTION 2 – HAZARDS IDENTIFICATION

Classified as hazardous according to criteria of NOHSC.

Risk Phrases: R36/38 Irritating to eyes and skin.
R65 Harmful: may cause lung damage if swallowed.
R66 Repeated exposure may cause skin dryness and cracking.

Safety Phrases: S13 Keep away from food, drink and animal feeding stuffs.
S2 Keep out of reach of children.
S25 Avoid contact with eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37/39 Wear suitable gloves and eye/face protection.
S46 If swallowed, seek medical advice immediately and show this container or label.

SUSDP Classification: S5
ADG Classification: None allocated. Not a Dangerous Good.
UN Number: None allocated

Emergency Overview

Physical Description & colour: Clear, amber liquid.

Odour: Aromatic odour.

Major Health Hazards: Oxyfluorfen is practically non-toxic by ingestion, with report oral LD₅₀ values of 5000 mg/kg in both rats and dogs, and 2700 to 5000 mg/kg in mice. The dermal LD₅₀ is greater than 5000 mg/kg in both rats and rabbits, also indicating slight toxicity by this route. It causes no skin irritation in rabbits, no skin sensitization in guinea pigs, and moderate eye irritation in rabbits.

Potential Health Effects

Health Effects

Acute:

Swallowed: The concentrate is of low toxicity if swallowed. If aspirated into the lung, e.g. from vomiting, the presence of solvent may result in chemical pneumonitis or other lung damage.

Eye: May cause irritation.

Skin: May irritate the skin. Prolonged contact with the concentrate can cause defatting of the skin and may result in dermatitis.

Inhaled: High vapour concentrations of the solvent while handling the concentrate are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, and may have other central nervous system effects.

Chronic:

Liver and kidney damage has been noted in laboratory animals that have been fed excessive doses of oxyfluorfen.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS number	Proportion
Oxyfluorfen	42874-03-3	24 % w/v
Emulsifier	secret	<10% w/v
Liquid hydrocarbon	64742-94-5	To 100 % w/v

SECTION 4 – FIRST AID MEASURES

Swallowed	If swallowed, DO NOT induce vomiting. Seek medical advice or contact Poisons Information Centre (Ph 13 11 26)
Eye	Immediately irrigate with copious quantity of water for at least 15 minutes. Eyelids to be held open.
Skin	Remove contaminated clothing and launder before use. Wash affected areas or skin thoroughly with soap and water. Seek medical advice if irritation develops.
Inhaled	Remove to fresh air until recovered. If symptoms persist, seek medical advice.

Advice to Doctor:

Treat symptomatically. If vomiting occurs, solvent present may cause pulmonary pneumonitis.

SECTION 5 – FIRE FIGHTING MEASURES

Hazards from Combustion Products

If involved in a fire, it will emit carbon monoxide, phosgene, hydrogen chloride and possibly hydrogen fluoride.

Hazchem Code None Allocated

Decomposition Temperature

Not known, stable at 100°C

Extinguishing Media

Water fog, foam, carbon dioxide or dry chemical.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spills & Disposal

Contain spill and absorb with clay, sand, soil or proprietary absorbent (such as vermiculite). Collect spilled material and waste in sealable open-top type containers for disposal. On-site disposal of concentrate is not acceptable.

Environmental Precautions

This product is a herbicide and spills can damage crops, pastures and desirable vegetation.

SECTION 7 – HANDLING AND STORAGE

Storage

Do not use or store near heat or naked flames. Store in the closed, original container in a well-ventilated area away from children, animals, food, feedstuffs, seed and fertilizers. Do not store for prolonged periods in direct sunlight.

This product is classified as a **C1 (Combustible Liquid)** for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to state regulations for storage and transport requirements.

Transport

Not considered hazardous by Australian Code for the Transport of Dangerous Goods by Road and Rail.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

National Exposure Standards

The manufacturer of the solvent has recommended an occupational exposure limit of 100 mg/m³; 15ppm TWA, as total hydrocarbon. NOHSC has set the following exposure standard for N-methyl pyrrolidone : TLV (TWA) 103 mg/m³, STEL 309 mg/m³. SK 'SK' notice - absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur.

Engineering Controls

Handle in well ventilated areas, generally natural ventilation is adequate.

Personal Protective Equipment

When opening the container, preparing spray and using the prepared spray wear cotton overalls buttoned to the neck and wrist and a washable hat, elbow-length butyl gloves and goggles.

Requirements Concerning Special Training

NSW regulations require that people who use pesticides in their job or business must have training in the application of the materials. By 1st September, 2005 all users must have received such training.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Form:	liquid
Colour:	amber
Odour:	aromatic odour
Vapour Pressure:	0.0267 mPa @ 25 °C for oxyfluorfen
Flashpoint:	100 °C
Flammability Limit:	Combustible liquid C1
Specific Density:	1.08 ± 0.01
Water Solubility	Forms emulsion

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability

Stable under normal conditions.

Hazardous Reactions

Keep away from strong oxidising agents.

Hazardous Polymerization

Hazardous polymerisation is not possible.

SECTION 11 – TOXICOLOGICAL INFORMATION

Toxicology Information

No harmful effects are expected if the precautions on the label and this MSDS are followed.

Acute Toxicity – Oral LD₅₀ (rat) >5,000 mg/kg for oxyfluorfen

Acute Toxicity – Dermal LD₅₀ (rabbit) >10,000 mg/kg for oxyfluorfen

Acute Toxicity – Inhalation LC₅₀ (rat) (4hr) >5.4 mg/l

Other Information

The Australian Acceptable Daily Intake (ADI) for oxyfluorfen for a human is 0.025 mg/kg/day, set for the public for daily, lifetime exposure. This is based on the NOEL of 2.5 mg/kg/day, the level determined to show no effects during long term exposure for the most sensitive indicators and the most sensitive species. (Ref: Comm. Dept. of Health and Ageing, 'ADI List', TGA, September 2006).

SECTION 12 – ECOLOGICAL INFORMATION

Acute Toxicity – Fish

The following is data for the active ingredient, oxyfluorfen.

LC₅₀ (96 hr) for trout is 0.41 mg/l.

LC₅₀ (96 hr) for bluegill sunfish is 0.2 mg/l.

Acute Toxicity – Daphnia

LC50 (48 hr) for daphnia is 1.5 mg/l for oxyfluorfen.

Acute Toxicity – Other Organisms

Birds: Not toxic to birds. LD₅₀ for bobwhite quail is >2,250 mg/kg

Bees: Not toxic to bees. LD₅₀ >25 µg/bee.

SECTION 13 – DISPOSAL CONSIDERATIONS

Disposal: Instructions concerning the disposal of this product and its containers are given on the product label. These should be carefully followed.

SECTION 14 – TRANSPORT INFORMATION

U.N. Number	None Allocated
DG Class	None Allocated
Hazchem Code	None Allocated
Packing Group	None Allocated
Storage and Transport	Considered non dangerous for transport by the Australian Code for the Transport of Dangerous Goods by Road and Rail.

SECTION 15 – REGULATORY INFORMATION

Poisons Schedule S5
Packaging & Labelling CAUTION
KEEP OUT OF REACH OF CHILDREN
READ SAFETY DIRECTIONS BEFORE OPENING OR USING
Hazard Category Harmful, Irritant
AICS (Australia) All of the components in this product are listed on the Australian Inventory of Chemical Substances.

SECTION 16 – OTHER INFORMATION

This MSDS contains only safety-related information. For other data see product literature.

CONTACT POINT:

Police and Fire Brigade:	Dial	000
National Poisons Information Centre:	Dial	13 11 26 (from anywhere in Australia)
For 24 hour emergency response:	Dial	0439 933 556 Ask for Murray Goodlich